

Commercial Space Opportunities Study (CSOS)

Integration Panel

Final Report

Prepared by:

**DEPARTMENT OF THE AIR FORCE
Headquarters Space and Missile Systems Center
Los Angeles Air Force Base, CA 90245-4697**

and

**Headquarters Air Force Space Command
Peterson AFB, CO 80914-3190**

20020429 085

**DISTRIBUTION STATEMENT A
(DoD Directive 5230.24)**

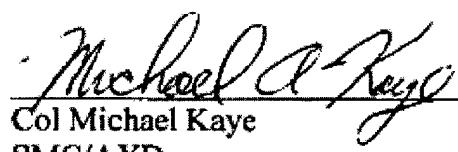
Distribution approved for public release.
Other requests for this document shall be referred to
Headquarters, Space and Missile Systems Center (AFMC)
ATTN: Commercial Exploitation Planning Office (CEPO)
SMC/XRIC, 180 Skynet Way, Suite 2234
Los Angeles AFB, CA 90245-4687

Commercial Space Opportunities Study

Integration Panel

Final Report

Approved By:


Col Michael A. Kaye 18 Feb 00
SMC/AXD


Col John Betts Date
AFSPC/XPT

COMMERCIAL SPACE OPPORTUNITIES STUDY

INTEGRATION PANEL

TABLE OF CONTENTS

1.	Introduction.....	1
1.1	Organization and Expertise.....	1
1.2	Integration Panel Study Approach.....	1
2.	Cross-Cutting Issues.....	1
2.1	Need to Balance Control and Market Reliance.....	1
2.2	A-76 Conversion.....	2
2.3	Government/Industry Interoperability.....	3
2.4	Impacts on Future and Other Missions.....	3
2.5	Protection and Security.....	3
2.6	Cost Estimating.....	4
2.7	Manpower/Personnel Impacts.....	5
2.8	Acquisition Reform Application.....	5
3.	Toffler Associates Inputs.....	6
3.1	Summary of Industry Comments.....	6
3.2	Industry Recommendations.....	6
4.	Summary.....	7

Appendix A Toffler Associates Inputs: Detail and Comments

1. Government Cycle Time and Speed of Decisions
2. Government Inefficiencies
3. Barriers to Effective Business With the Government
4. Small Business Difficulties in Dealing With the Government
5. Added Costs to Working With the Government
6. Added Costs of Military Satellites
7. Added Costs of Ground Stations
8. Indefinite Delivery/Indefinite Quantity (ID/IQ)
9. Other Comments

1.0 Introduction

The Integration Panel provided cross-cutting identification and assessment of issues. The Panel participated primarily in the Baseline and Analysis phases of the Commercial Space Opportunities Study (CSOS).

1.1 Organization and Expertise

The Integration Panel was comprised of a multifunctional team designed to give a good mix of AFSPC and AFMC, with broad experience. Members were:

Col Mike Kaye	SMC/AXD	(co-chair)
Col John Betts	AFSPC/XPT	(co-chair)
Col Bill Powell	USSPC/J-6	
Col Tom Clark	AFSPC/XP	
Lt Col Dave Spataro	SAF/AQS	
Lt Col Marty France	AF/XORB	
Lt Col Reginald Holmes	NSSA	
Lt Col Mark Land	AFSPC/JAQ	
Lt Col Samuel Barr	AF/XORR	
Lt Col Michele Lehmkuhl	AFSPC/XPMN	
Susan Bowman	SMC/JA	
Chuck Willett	SMC/BC	
Capt Eric Nguyen	SMC/FMC	
Judy Gonce	SMC/XRS	
Roland Schank	SMC/PKC	
Sandy Semrod	SMC/XP	
Robert Schwartz	Aerospace Corp	
Charles Henning	SAIC	
Capt Mike Daniel	SMC/XR	

1.2 Integration Panel Study Approach

Integration Panel members attended many of the Focus Panel and full team sessions, in order to identify cross-cutting issues and provide “honest broker” perspective. Identified issues were investigated to determine if specific action was warranted. In addition, the Panel conducted follow-up interviews with a group of companies initially interviewed by Toffler Associates. These companies, mostly Small Businesses, did not respond to the initial RFI, but had important perspectives on conducting business with the Government.

2. Cross-Cutting Issues: The following issues were common to one or more Focus Panels:

2.1 Need to Balance Control and Market Reliance

Each Focus Panel investigated the potential for transferring responsibility for currently Government-operated activities to the commercial market place. These investigations covered the gamut from conversion of Government assets to buying service or product as one consumer in the total market. The team recognized that the primary objective in all cases must be mission

assurance. This did not rule out moves towards the commercial market, but emphasized the need for a considered approach, since the Government has limited legal authority over the Market:

- The Government can set priorities, but not “take over” operations. Seizure of property is limited to taking under eminent domain, with compensation, under Congressional authority. In time of emergency, there is only limited authority for seizure of assets for violations of Selective Service Act requirements to comply with obligatory orders placed by the Government. The Selective Service Act provides for precedence of Government-placed orders for delivery of articles or materials. Additional protection during contingencies is afforded by the Defense Production Act. The Defense Production Act provides for priorities and allocations in contracts or orders under contract terms specified in the Federal Acquisition Regulations (Subpart 11.6), but has no provision for the government to seize control of a company nor any of its assets.
- The need for extraordinary activity in case of contingency or emergency can usually be addressed contractually. Contractors have supported deployments and contingencies, and have even been more than willing to cooperate and contribute in times of combat or emergency.
- The Government may reclaim leased or licensed property when required as specified in the real property instruments.
- **Closure:** The Integration Panel assisted in assessing each Focus Panel’s investigation of potential conversion. The panel did not determine a separate finding or recommendation.

2.2 A-76 Conversion.

Several Focus Panels identified potential benefits from outsourcing current Government-run activities to contractors. In each case, the requirement for A-76 action was identified as an issue or concern. Industry also expressed concern that Government Most Efficient Organizations (MEO) won an inordinate amount of A-76 comparison studies. In reality, however, contractors have been awarded approximately 50% of all contracts ensuing from A-76 comparison studies.

DoD Policy and OMB Regulations require A-76 Cost Comparison Studies be conducted when more than 10 civilian employees are performing workload that is determined to be eligible for contract performance. The A-76 process has been revised for studies to be completed within 18 months, but it is politically sensitive, and does not lend itself to rapid decision making and contracting actions. Unfortunately, the time taken for such comparison studies may reduce the potential savings by delaying implementation, and thereby deferring savings. In addition, the costing of in-house versus contract operation is based on 5 years, which may not be cost effective when the technology insertion to update organization capability is contemplated. Each focus panel adjusted their strategy to account for the cost conversion time impact.

To date, there has been a lack of application of Acquisition Reform principles to the A-76 process. As a result, the cycle timelines required to conduct an A-76 Study and award a contract do not necessarily track to the streamlined procurement practices available with other types of procurements. This is partly due to legal requirements. However, the Panel felt several practices could be implemented:

- Utilize statements of objective (SOO) and performance-based requirements vice detailed performance work statements (PSW) for solicitations.
- Higher Headquarters delegate as much approval as possible to Centers, to include PSW and source selection authority.
- Increase use of “Industry Days” and draft requests for proposals (RFP) to improve openness and ensure contractors fully understand requirements and processes.

RECOMMENDATION: Apply Acquisition Reform Principles to A-76 Cost Comparison Studies.

- AFSPC/XP and AFMC/XP work with AF/XP to study recent A-76 waivers used by other Services and identify applicability to maximize flexibility for waivers within the Air Force.
- AFMC/CC delegate authority to Centers for approval of Performance Work Statements (PWS).
- AFMC/XP and AFMC/AQ determine how to maximize Acquisition Reform application to A-76 Cost Comparison studies.

2.3 Government/Industry Interoperability

Standards for space systems are relatively immature. The Government could work vigorously to establish standards (as occurred in developing aircraft), wait for the commercial market place to establish them (as occurred with VCRs with Beta Vs VHS), or some of both.

- The American Institute for Aeronautics and Astronautics (AIAA) has established a group to identify and classify existing standards. USSPC is participating in this group.
- The United Nations has established a committee to define standards. There is a Technical Advisory Group advising the US delegate.

RECOMMENDATION: USSPC should consider increased involvement in the UN standards committee

2.4 Impacts on Future and Other Missions

The team identified a concern that whereas the CSOS addresses primarily current space missions in the arenas of Force Enhancement and Space Support, other missions in the arenas of Space Control and Force Application will develop and increase in importance. In addition, changes in the studied space missions could impact non-space systems and missions.

- **Closure:** The team felt that AFSPC and USSPC leadership and partnering in the CSOS were adequate to ensure any potential for impacts on other space missions would be fully explored. In addition, AF/XORR was added to the Integration Panel to ensure any potential adverse impacts to non-space missions would be identified and explored. None were found.

2.5 Protection and Security

Potential outsourcing of Government systems/responsibilities raised several concerns relative to protection of assets and security. Each Focus Panel was advised to consider that transition may present protection and security impacts and/or risks. All of the appropriate considerations throughout the system life cycle have to be tested against the situation inherent in having a system provided wholly or in part by commercial companies. Of course, our systems are typically produced and delivered/supported by commercial contractors; these companies are perfectly capable of applying any security measures necessary. But, if the Government limits its own capability to impose and require specific levels of protection to be afforded these systems, the resulting risk has to be factored into the overall risk that the system will be operationally safe, suitable, and effective (OSS&E). Clearly a system that can easily be denied to the national defense through adversarial actions that should have been neutralized by design would not meet the OSS&E criteria.

- Transfer of direct physical or management control must address prioritization and sharing.
- Key questions to consider:
 - Technology questions: Is the technology intrinsically unique to military applications or is the type of application unique? Would it be subject to countermeasures by adversaries if it were known and understood by them? Can this technology be shared with allies? If so at which point? Should the technology be protected as classified information or can it be protected as UCI or proprietary?
 - System questions: Is information about the system (other than technology such as CONOPS, OPS Plans, Employment options, Deployment locations, etc.) sensitive and if so how must it be protected? In addition, the same questions are asked as for technology.
 - Physical protection questions: Are there system level protection considerations? For instance will the plant, the location of the program office, the testing facilities, or the test operations themselves have to be protected (for instance, the testing of stealth technology presented this sort of problem). Are physical security, OPSEC, covert locations, cover stories, and other such measures required during acquisition or operational phases?
- Contractual provisions have been adequate to address concerns in many systems operated by commercial companies; therefore, as long as proper efforts are taken, ensuring protection and security should not be a “roadblock” problem.
- **Closure:** Focus Panels were advised of the issues above and advised that transition teams must assure commercial practices or contractual provisions are adequate for protection standards, survivability, liability and information assurance. Especially, the Integration Panel felt that adequate processes are already in place for any implementations, since SMC/AXP is regularly involved in review of acquisition strategies.

2.6 Cost Estimating

The Integration Panel supported Focus Panel cost estimating efforts.

- Generally, business case savings estimates are uncertain, since real savings will not be known until actual proposals are evaluated.
- Obtaining accurate estimates was challenging due in some cases to lack of full knowledge of current operating costs for systems.

- Overall, the Air Force faces challenges in comprehensive cost estimating. First, estimating resources are limited. Second, whereas there are established cost estimating methodologies, there is still need to improve estimating state-of-the-art in order to support programming and budgeting as well as program execution through cost as an independent variable (CAIV) analyses and reduction in total ownership cost (R-TOC) efforts. CAIV and R-TOC dictate increased emphasis on conducting cost/ performance/supportability trade-offs early in the program phase. Therefore, SAF/AQ has formed a reinvention team to study how to “Maintain/Enhance Cost Estimating Capabilities Within the Air Force.” The benefits of this initiative will:
 - Provide quality cost information to senior AF and DoD leadership on costs of acquiring and operating any program within USAF
 - Enhance accuracy of funding requirements
 - Strengthen credibility with Congress
- **Closure:** Integration Panel support to each Focus Panel maximized commonality of estimating methodologies.

2.7 Manpower/ Personnel Impacts

Conversion of in-house workload to contract operation impacts the overall organizational structure, career progression, and operation of the organization. The challenge facing the Air Force is how to maintain viable career fields to perform that work which is inherently governmental, meet wartime requirements, have a viable program for rotating military personnel overseas and stateside, while at the same time contracting for functions. The civilian carrier fields have similar issues as the military. Both face challenges in structuring career paths that attract the necessary numbers and skill levels as more of the workload is contracted. In fact, the main point expressed by Industry in dialogue with the Government for needed focus in acquisition is that the Government must be a “smarter buyer”. The Air Force must still “grow” managers with requisite knowledge and experience through viable career progression paths that provide adequate resources.

- AFSPC/XPM and SMC/XPM worked with each Focus Panel to assess manpower impacts.
- Current policy drives reallocation of manpower savings across the Air Force rather than reverting to the organization initiating the cost reduction measures. Unfortunately, this may be a negative incentive for pursuing such savings.

RECOMMENDATION: AFSPC/XP and AFMC/XP investigate change in Air Force policy to provide for reallocating manpower savings within the Command generating the savings

2.8 Acquisition Reform Application

Focus Panels must apply Acquisition Reform principles and practices in order to derive maximum savings in their cost saving opportunities. The Integration Panel provided insight to various reforms and how they may be applied. Specific examples include:

- The objective for each Focus Panel opportunity is a competitive RFP. SMC/AXD, the Acquisition Support Team, will assist each acquisition as it goes forward.
- Cost saving initiatives should make maximum use of FAR Part 12 and incentives.

- Each initiative should focus on defining top-level objectives, expressed in a Statement of Objectives (SOO) and let Industry identify “How” the initiative will be implemented in order to gain maximum benefits from commercial efficiencies.
- Initiative implementation teams should involve Industry in defining specific risks and writing request for proposal (RFP) award criteria (Section M).

RECOMMENDATION: SMC continue dialogue with Industry to identify potential further Acquisition Reforms

3.0 Toffler Associates Input Summary

The Toffler Associates Company queried several companies that did not respond to the original RFI for opinions and recommendations on Government acquisition. The Integration Panel followed up these interviews to obtain additional detail. Detailed inputs and comments are provided in Appendix A. Salient points and Industry recommendations are summarized in this section.

3.1 Summary of Industry comments

- **Government cycle time and speed of decisions lags Commercial**
- **Government acquisition process has inefficiencies**
- **Barriers exist to effective business with the Government**
- **Small Business has added difficulties dealing with the Government**
- **There are added costs to doing business with the Government**
- **Military satellites have added costs**
- **Military ground stations have added costs**
- **Mixed opinions on Indefinite Delivery/Indefinite Quantity (ID/IQ) contracting**

3.2 Industry Recommendations.

The basis of each of the recommendations is addressed in Appendix A or the focus Panel reports.

- **Sub-contract everything possible.** Reduce Government people as much as possible, except specifically where combat systems are involved.
- **Purchase COTS whenever possible.**
- **Ensure major primes do not cut Small Business out of program after contract award.**
- **Allow commercial audits (with special Government requirements added, if necessary) to fulfill Government audit needs.**

- **Develop and use more contractual vehicles that provide flexibility.**
- **Allow more profit when risk is shifted to Industry.**
- **Leverage commercial developments rather than design unique.** Particular application for communications satellites; even for high degrees of security.

4.0 Summary

In addition to the benefits that specific Focus Panel initiatives and implementation of Integration Panel recommendations will derive, the CSOS offers opportunity for improving dialogue between Government and Industry that can lead to improvements in the acquisition process. Logical progression would be through improved mutual understanding, idea cross-flow, initiation, and implementation. The Toffler Associates inputs are particularly valuable in starting this progression.

APPENDIX A

“Toffler Associates” Inputs: Details and Comments

Introduction: Numerous companies graciously submitted comments related to the Government way of doing business. The salient points are included in this Appendix. After various inputs, bold-faced responses/comments are provided to give the Government perspective. We hope the discussion will be used as a point of departure for further dialogue to improve understanding of mutual processes, identify opportunities for improving Government acquisition processes, and especially to bolster Government/Industry partnering for meeting the warfighting needs of our Armed Forces.

1. Cycle time/speed of decisions:

- Major difference between Commercial and Government clients; Commercial clients have a much faster ability to address issues and move forward.
 - *In many cases, that is true. In some cases, Government offices have legal requirements and restrictions. However, we are constantly striving to identify potential improvements. SAF/AQ has initiated Re-Invention Teams to study numerous initiatives, including overall cycle time. We would appreciate any specific recommendations! You can submit ideas directly to SAF/AQ through www.safaq.hq.af.mil/acq_ref/ or to SMC through michael.kaye@losangeles.af.mil.*
- Government cycle times for programs can be extraordinarily long. One result is that systems are often fielded with outdated chips and software. On the other hand, businesses often take 2-3 years to move from idea to implementation; cycle time in the computer industry is 6-12 months.
 - *In sole source and post-award modification environments, the Air Force has speeded up actions under various names such as "shoulder to shoulder," "one pass" and "concurrent engineering," which provide cooperative Government/Contractor definition of requirements and work effort.*
 - *For competitive solicitations, the Air Force has extensively used pre-award "exchanges" of the new FAR 15, in the form of web sites, "Industry Days," and "one on one" exchanges with potential offerors to speed understanding prior to RFP release.*
 - *SAF/AQ has formed reinvention teams on cycle time and "Incentive for Schedule" efforts to reduce the time needed to get on contract and to execute programs. Information is available on the SAF/AQ Acquisition Reform website.*
 - *The Air Force has made dramatic improvements in acquisition times for computer and COTS equipment, and is definitely interested in further improvements.*
- Government process for change is cumbersome. Small enterprises would die if they moved at the Government's pace.
 - *Agree change is often difficult. We have a commitment to work for change, and appreciate any recommendations.*

- Commercial operators have reversed the paradigm--they are forging ahead of the Government in applications of newest computer hardware and software.
 - *Agree that industry has forged ahead of the Government! The Government intends to posture itself to take advantage of industry's efforts. We're using more COTS, and we're requiring our operating commands and system program directors (SPD) to consider commercial solutions before beginning a new development.*
 - *SMC has formed a Commercial Opportunities Exploitation Office (COE) to conduct market research prior to acquisition of a new system, product, or service. For information, contact*
 - (web) <http://xr.losangeles.af.mil/coe>
 - (email) commercial.space@losangeles.af.mil
 - phone (310) 363-2613
- The Government often seems to lack a sense of urgency.
 - *From the outside, that may seem to be the case. However, many offices in systems acquisition are urgently working many simultaneous issues.*
- Some companies will not deal with the Government because of long cycle times.
 - *That is unfortunate. We are working to reduce cycle times, improve openness with Industry, and provide insight to our processes.*

2. Government inefficiencies:

- Government bureaucracy is not measured like a business. Government is measured by adherence to budget whereas commercial is measured by return on investment. Business is constantly forced to trim overhead, but there is little pressure for Government to trim overhead. Government organizations that collect fees have a better idea of how they're doing.
 - *In an effort to become more business-like, AFMC/CC has directed all AFMC business areas to develop and implement Activity-Based Cost Management (ABCM). This approach seeks to relate the resources consumed by an organization to the activities it performs and to the product or services it provides; all to support effective operational and strategic decision-making. We anticipate this will greatly aid our ability to reduce overhead where practicable.*
- Whereas outsourcing could drastically cut the number of positions in various areas, there is great resistance due to concern about losing senior billets, thereby also adversely impacting junior officer career paths.
 - *This issue was addressed in Section 2.7 of the Integration Panel report*
- There is a growing capacity for mobile and fixed satellite services that Government should buy rather than build and operate.
 - *The Communications, Remote Sensing, and Navigation Panels conducted extensive studies of potential for leasing or buying signal in their areas. Their final reports recommend use of such practices where viable business cases balanced with military necessity and mission assurance warrant.*

- Government could sell or lease services to private sector; keep core activities, and put truly commercial activities with companies managed by Government managers.
 - *Current law restricts Government ability to sell or lease services to the private sector.*
- Government relies on fleets of commercial airliners for much of its' travel needs--should extend same principle to non-combat tasks.
 - *The Government has transitioned many functions and work efforts to commercial companies and will continue to look for further opportunities. In fact, the CSOS was a significant effort to look for such opportunities in the space business area.*

3. Barriers to effective business with the Government:

- Government is too tight on profit margins: this suppresses competition and encourages contract changes.
 - *To the extent that public law constrains profit for a particular contract type, Air Force functions as an implementor of public policy. Recognizing the benefits (both to competition and to programmatic stability) that can result from higher profit, Air Force has begun making greater use of fixed price arrangements, not only Firm Fixed Price (FFP), but also Fixed Price Incentive (FPI) with either firm or successive targets. Prior to award, these contract types allow the competitive market - not law or regulation - to dictate profit. After award, these contract types place no cap on actual profit realized.*
- Government is unwilling to listen to ideas.
 - *The FAR stresses openness. A key element of Acquisition Reform has been to stress partnership with Industry. Both of these concepts open the door for dialogue that will improve understanding and lead to new and better ways for doing business.*
 - *Competitive solicitations typically are initiated with "Industry Days" to open the dialogue and ensure Industry understands Government requirements. In these sessions, the Government is looking for honest feedback and input on the requirements as well as the potential acquisition strategies.*
 - *Several Centers, including SMC, have initiated "Risk Analysis" sessions with potential offerors, to assess risks and focus points for the solicitation. Many of these sessions have successfully used electronic (and anonymous) brainstorming techniques to provide effective inputs from Industry without disclosing competitive positions.*
 - *SMC has hosted annual Acquisition Reform Weeks and participated in frequent Acquisition Reform sessions with Industry groups and individual companies. We are absolutely interested in continued, frank dialogue--one-on-one or in groups--to find better ways of doing business. This dialogue with Industry under the auspices of the CSOS has provided very valuable inputs. We are willing to listen.*
- Government is not a good customer due to funding instability and payment inefficiencies.
 - *Unfortunately, funding stability is to a great degree controlled by Congress. The Air Force has tried numerous times to obtain multi-year funding for programs with limited success.*
 - *SMC/AQ's recent Lightning Bolt 99-6, "Improved Payment Processes," provides selected program offices the opportunity to test innovative solutions to remedy payment inefficiencies. Approaches include: streamlining the structure of accounting data included in AF contracts, expanding the use of purchase cards as a payment vehicle for*

major weapon system and service contracts, improving the payment pre-validation process, and applying consistent payment instructions.

- Government is constrained by an inability to make long term commitments in its' acquisition process. Business avoids a short commitment focus because it is expensive.
 - *The Air Force has been entering into contracts for five, eight, or in some cases ten years. Many such contracts rely on options as a means of pricing the out-years and in some cases have garnered criticism for expecting industry to be able to see into the future. One sort of "long term commitment" - recognizing that company X is to be our source for product Y - could offer advantages in terms of logistics and preplanned product improvement but would carry corresponding disadvantages in terms of arriving at prices for future years' requirements. This is most likely why Congress voted in the Competition in Contracting Act.*
 - *Notice this complaint runs counter to the complaint that long-term contracts stifle competition by "locking in" the winner for many years.*

4. Small Business difficulties in dealing with the Government:

- Small Business Innovative Research (SBIR) Phase 3 changes have all been for the worse: e.g., supposed improvements in bridge funding between Phase 1 and Phase 2 were never delivered.
 - *SBIR is a three-phase program. Phase III involves private sector or federal funding (outside the SIBR program) to commercialize a phase II project. While the Government encourages commercialization efforts, Small Business is ultimately responsible for the commercial marketing and sale of the technology or product developed under the SIBR.*
- Huge bundled contracts suppress Small Business opportunities.
 - *While it is true that "bundling" of contracts impacts small business participation, the SBA has established guidelines for Small Business that want to create a joint venture or team to go after bundled contracts. Small Business may form joint venture and teaming relationships without regard to affiliation. They may also be considered responsible contractors for "bundled" and other large contracts which exceed the capability of any of the individual Small Businesses to perform as prime contractors.*
 - *SMC has a Small Business office (SMC/BC) specifically to advocate Small Business interests. They represent Small Business in the acquisition strategy formulation stage for every solicitation. SMC leadership considers potential Small Business involvement in every solicitation. The potential for set-aside is always one of the first considerations, as well as the impact of not doing so. In addition, leadership assesses the potential for teaming and sub-contracting.*
 - *In a recent solicitation for a large, multi-year range support contract, SMC established a criteria in the RFP Section M for minimum 10% Small Business involvement. If an offeror submits a proposal with less than the 10% Small Business involvement, they will be deemed non-responsive to the solicitation.*
- Major primes have submitted proposals citing Small Business vendors as part of the team in response to RFP requirements only to cut the Small Business out after contract award. Small contractors have to sub with the large companies, who often take the technology and ideas, then cut the small contractor out.
 - *To preclude major prime contractors from submitting proposals identifying Small Business subcontractors and later not utilizing them in the acquisition effort, SMC/BC*

reviews all subcontract plans prior to award and ensures that meaningful and challenging goals are negotiated with the prime contractors. DFARS 19.704 specifically states that the prime contractor must notify the ACO of any substitutions of firms that are not small for firms listed in the subcontract plan. In addition, where it makes good business sense, we tie in small business subcontract performance to an award fee.

- Often, a Small Business gets a contract that will not pay off until the contract is complete. The business must then bear the burden of cost of money, at high interest rates to fund the effort.
 - *AFMC is working to implement LB 99-6, "Improve Payment Processes, as described above in Section 2.2.3.*
 - *Various payment methods can be negotiated in the contract, allowing for progress payments, or providing interim deliveries that recognize work accomplished. Further information can be gained from*
- Small Business can't afford to participate in studies like the larger companies can. As a result, study results will be slanted to large company-preferred solutions.
 - *The SBIR program is an excellent way for small business to get involved in high technology programs and studies requiring innovative solutions. These contracts have proven to ease entry into government contracting. This program is restricted to small business.*
- Government mindset has a bias against Small Business.
 - *Through small business education and training of contracting and technical personnel, SMC is sensitive in supporting the Small Business Program. We have met or exceeded small business goals for ten successive years. In addition, see the response to "bundled contracts" above.*
 - Large companies never say "no" to requirements; Small Business must be more careful.
 - *Our experience is that large companies do say "NO" to requirements and are selective in pursuing acquisitions that they feel they can compete in. Large and small companies are making judicious decisions on what requirements they should pursue.*
- The process to obtain security clearances is too difficult and is a major barrier for a small company.
 - *If the PCO determines that a small business is a serious contender for an acquisition that requires a security clearance, the small business may request that the PCO act as a sponsor to assist in obtaining a clearance. If there is reluctance on the part of the PCO, the Small Business Office (SMC/BC) may be able to offer assistance.*

5. Added Costs to Working With the Government:

- There is cost in knowing the Federal Acquisition Regulations (FAR).
 - *In dealing with Air Force, NASA, or any other government agency, there is the additional cost of doing business that comes from keeping abreast of all sub-tier regulations. While no one can make the cost of doing business go away, the Air Force has eliminated all sub-tier regulations at the center level. The good news here is that there are no longer local FAR supplements for the Product Centers and the Air Logistics Centers. The remaining bad news is that you'll still have to contend with FAR as supplemented by DoD, Air Force, and AFMC.*

- *Involvement with the National Contract Management Association (NCMA) and dialogue with Government as sponsored by your local Small Business office and Contracting office may improve understanding at minimum cost.*
- It is tough to respond to a Request for Proposal (RFP) when you're funded by investment capital. Small Business does not usually have much bid and proposal (B&P) money.
 - *Noted.*
- Duplication of audit requirements: companies already have annual independent audits.
 - *Independent auditors work issues that are of interest to investors and the SEC. Their work products generally do not address the same issues as DCAA. For example, a profit and loss statement may be assessed as both accurate and accomplished in accord with generally accepted accounting principles. This does nothing to address the acceptability of a purchasing system or the accuracy of a cost estimating system.*
 - *We have forwarded this idea to DCAA for further investigation.*
- Oversight adds cost; must also cost the Government a lot to perform.
 - *The Air Force has reduced its acquisition workforce by 40% since the 1980's and has placed increasing emphasis on less oversight. The Air Force has shifted to insight, which entails a smaller program office, performance-based specifications (with more contractor responsibility), and fewer data deliverables.*
 - *SMC is working to develop a process to aid IPTs in defining "Insight vs Oversight" application to their specific programs. The foundation for the effort is the concept of partnering, through baselining of expectations and clearly defining roles and responsibilities to limit duplication.*
- Overall system costs are driven heavily by the process of obtaining it; Commercial buyers use minimal oversight and do not require cost accounting.
 - *Public Law drives Cost Accounting Standards (CAS). CAS does fundamentally differ from Generally Accepted Accounting Principles (GAAP). Whereas, GAAP is applicable to financial statements reported by publicly held corporations for investors, CAS dictates methods for contractors to measure, assign, and allocate costs in a consistent and uniform manner as prescribed in FAR 52.230-1.*
- Government's insistence on data rights makes companies sensitive about their proprietary commercial business information and can drive costs higher.
 - *The Air Force has been highly cognizant of the impact that data rights have on costs. We have definitely reduced the amount of such data deliveries, recognizing that in many cases, re-competition is impractical. The need and consequent costs for data rights is reviewed on a case-by-case basis.*
- Government needs to use more contracting vehicles that provide flexibility.
 - *The Air Force is seeking to look broadly at vehicles already available and is receptive to ideas for new ones. We initiate solicitations with "Industry Days" to not only ensure Industry understands our requirements, but to seek inputs on strategies, including contract types. Our Acquisition Strategy Panels consider every viable approach, and invite Industry comment on the strategy selected.*
 - *The use of task order contracts typified by our Engineering Design and Development (EADD) contracts has demonstrated tremendous flexibility in terms of meeting users' needs.*

- *Fixed Price Incentive Successive Target (FPIS) is a contract type which has been on the books for years but one that has not had a large amount of implementation. Within SMC in the last year, two acquisitions have consciously deliberated the pros and cons of this contract type.*
- *We would very much welcome any recommendations and innovative ideas. We need continued dialogue with Industry in order to maximize effectiveness and minimize burden for all involved parties.*
- Government increases cycle time and consequent costs because employees treat contractors in a confrontational mode.
 - *As discussed above, the Government is placing increased focus on partnering. Effective partnering is absolutely critical to program execution success. The use of integrated product teams (IPT) and greater openness have already paid off handsomely for many programs. These programs typically have had high degrees of partnering between the Government and Industry participants.*
 - *SMC is working to develop a process to aid IPTs in focusing on key interdependencies and risks in order to baseline expectations between participants, thereby decreasing confrontation and increasing effectiveness. This process will also help define application of "Insight vs Oversight" to the specific program.*

6. **Added Costs of Military Satellites:** Military satellites often cost more due to military requirements that commercial companies account for with insurance or in-orbit spares. Such requirements include: redundancy (which adds weight and consequent launch costs), custom-built designs (commercial uses more modular, manufacture-line approach), multiple test launches required to validate the system, and radiation hardening (no corresponding commercial need addressed)
 - *Military mission assurance often dictates added requirements that will drive greater costs. We cannot always afford to let a satellite constellation fall below its minimum operational capability based upon a business case. Our limited access to space doesn't allow quick reaction launches a spaceplane with aircraft-like characteristics is unfortunately decades off.*
 - *Each of the Focus Panels looked at specific requirements as they built their recommended approaches. Where possible, they leveraged commercial approaches, including addressing the types of requirements cited above.*
7. **Added Costs of Ground Stations:** Custom, unique systems developed by large primes with high overheads raise costs. Contributing factors:
 - Contractual use of cost-plus contracts.
 - *The Air Force is well aware of this cost driver. Every acquisition strategy session discusses the application of cost versus fixed type contracts. Several years ago, the Air Force extensively used fixed type contracts for development efforts. The result was heavy contractor losses, so fixed price contracts were restricted.*
 - *As a risk reduction for the future NPOESS system, we are pursuing definition and implementation of ground control as part of the SPD&RR contract. The results of this effort will play into future acquisition strategy sessions.*
 - Government pursuit of unique architectures: development costs aggravated by non-mature software code.

- *Unfortunately, COTS software is not the universal answer. We'd love to use COTS software for every mission, but our experience has been that COTS software generally needs modification to satisfy mission requirements. In some cases, modifying COTS software to meet the mission may actually have been more expensive than developing new Government software.*
- *SMC leadership and technical experts review the applicability of COTS software during acquisition strategy formulation. Application is on a case-by-case basis.*
- Establishment of compliance standards at too low a level. Government needs to focus on what rather than how the system will perform.
 - *The Air Force is working hard to drive to performance-based requirements. Mission Need Statements (MNS) and Operational Requirements Documents (ORD) now document what, rather than how, the system must perform. HQ USAF established a Requirements Re-engineering Team to determine how the process can further be streamlined and integrate better with the acquisition process.*
 - *Dr Kaminski's 1995 policy restricted use of MIL-Standards and Specifications.*
 - *USAF Acquisition Policy 99-1, dated 7 Jun 99, provides a balanced approach that acknowledges the potential need for standards in ACAT I, II, and, III programs. Furthermore, the policy states a preference for use of performance specifications and standards when purchasing new systems, major modifications, and commercial and non-developmental items. The policy recognizes that standardization documents may be required or desirable in some situations, but may require a waiver.*
- Government lacks visibility on total costs to operate ground stations.
 - *The Air Force is addressing this concern. SAF/AQT, the R-TOC program office, is leading the charge to baseline all systems as a necessary step in identifying cost saving opportunities. They have established an Air Force Total Ownership Cost (AFTOC) database that is designed to provide timely visibility into O&S costs of all major systems.*
- Open, database based architectures can do the job for far less than Air Force is spending.
 - *AF has been migrating to open system architectures and databases for years. We would appreciate any specific recommendations--especially in the form of innovative proposals to solicitations.*

8. Indefinite Delivery/Indefinite Quantity (IDIQ): (mixed opinions)

- IDIQs are not sufficiently bilateral and are not attractive: banks do not recognize them as collateral for loans and there is no legal force to require the Government to exercise them.
- IDIQs inhibit future competition.
- IDIQs facilitate rapid acquisition action.
 - *Noting Industry's mixed opinions on advantages and disadvantages of this technique, we feel that ID/IQ is a tool that can be considered on a case-by-case basis for future acquisitions. We are committed to involve industry more in our acquisition strategy formulations with a view toward picking the right tools for all our contracts. In that vein, we will appreciate comments towards applicability of ID/IQ as it applies to future solicitations.*

9. Other comments:

- Failure to use available legal and regulatory mechanisms (FAR Part 12) is more an issue of comfort rather than lack of awareness.
 - *Air Force leadership reviews the potential for FAR Part 12 during the acquisition strategy formulation for every solicitation.*
 - *We are seeing more FAR Part 12 action across the Air Force.*
 - *SMC has established an office for market research with SMC/XRI. This office will assist in identifying FAR Part 12 opportunities, not only for complete acquisitions, but when appropriate, as portions of total acquisitions.*
- Small companies generally ignore the Commerce Business Daily (hence low response to the RFI).
 - *Ignoring the Commerce Business Daily is not recommended because of the acquisition information that is obtained from that document. Companies reading the CBD find web sites that allow them to access in-depth information on specific acquisitions. To ignore the CBD is not a good business decision.*
- Industry benefits from scientists that leave the Government because salaries are capped.
 - *The Government is always concerned about retaining expertise in many career fields, including scientists. The Government has used various incentives, such as bonuses, when certain career fields faced specific shortages.*
- SMC has made good progress moving toward commercial practices, but needs to cut back further on needed documents and oversight to speed up the process.
 - *Thank you for the compliment. Each CDRL is scrutinized for necessity. In fact, in some cases, we may have cut back too far (which is receiving scrutiny driven by the recent rash of launch failures.)*
 - *SMC is working to develop a process to aid IPTs in focusing on key interdependencies and risks in order to baseline expectations between participants, thereby decreasing confrontation and increasing effectiveness. This process will also help define application of "Insight Vs Oversight" to the specific program.*
- Commercial vendors focus on price, schedule, and offeror reputation whereas Government focuses on technical aspects.
 - *While this may have been true pre-1995, Acquisition Reform has brought increased emphasis on offerors' past performance (documented "reputation"). Even with the latest suite of changes to AF source selections (AFAC 96-2 implementation of changes to AFFARS) procedures, there continues to be strong guidance to use past performance assessments--past performance is one of the four mandatory evaluation factors in AF "best Value" source selection decisions. The latest changes dictate that past performance may be established as the most important evaluation factor and shall be at least as important as the most important non-cost factor.*
- Concerned that a multitude of studies indicates that DoD is not really committed to changing anything; Government "funds a study to look at a demo to do a pilot."
 - *Everyone involved in the CSOS study has been fully committed to identifying savings and driving changes to capture them.*

- The Commercial Market does not need the Government!
 - *While it is true that Government is not the driving force in the space arena that it used to be, believe there is still enough business opportunity to make many commercial concerns interested in doing business with the Government.*
- Big business does not have the right mindset to reduce costs.
 - *We have found large companies very concerned with cutting costs, especially while working under fixed price contracts. Excellent cost-cutting results have also been attained during the source selection process and through incentives/award fees during contract execution.*